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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 5

Complete if Known

Application Number	10/537,503
Filing Date	June 3, 2005
First Named Inventor	James H. Saunders, et al.
Art Unit	1746 1795
Examiner Name	Thomas Stevens- Phasge

Attorney Docket Number 13920US

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
/A.P./	US- 6,635,369		10/2003	Uribe et al.	
/A.P./	US- 3,436,271		4/1969	Cole et al.	
/A.P./	US- 5,023,150		6/1991	Takabayashi	
/A.P./	US- 6,096,449		8/2000	Fuglevand et al.	
/A.P./	US- 6,255,008		7/2001	Iwase	
/A.P./	US- 4,741,978		5/1988	Takabayashi	
/A.P./	US- 4,904,548		2/1990	Tajima	
/A.P./	US- 5,925,476		7/1999	Kawatsu	
/A.P./	US- 3,544,380		12/1970	Dey	
/A.P./	US- 5,601,936		2/1997	Dudfield, et al.	
/A.P./	US- 6,069,448		8/2000	Wilkinson et al.	
/A.P./	US- 6,210,820		4/2001	Knights et al.	
/A.P./	US- 4,440,611		4/1984	Dhar et al.	
/A.P./	US- 4,497,698		2/1985	Bockris et al.	
/A.P./	US- 4,501,804		2/1985	Bockris et al.	
/A.P./	US- 4,772,776		2/1988	Murphy et al.	
/A.P./	US- 4,734,168		3/1988	Bockris et al.	
/A.P./	US- 4,790,916		12/1988	Murphy et al.	
/A.P./	US- 4,910,099		3/1990	Gottesfeld	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
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/A.P./	WO 01/80340		4/2001	Klos et al.		
/A.P./	DE 10053851		5/2002	Bruck et al.		
/A.P./	JP 11345624		12/1999	Yasumoto et al.		
/A.P./	JP 8007905		1/1996	Kurisutofuaa et al.		
/A.P./	WO 98/42038		3/1998	Friedrich et al.		
/A.P./	EP 0701294		8/1996	Dudfield et al.		

Examiner Signature	/Arun Phasge/	Date Considered	11/26/2008
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Sheet

2 of 5

Complete if Known

Application Number	10/537,503
Filing Date	June 3, 2005
First Named Inventor	James H. Saunders, et al.
Art Unit	4746- 1795
Examiner Name	Thomas Stevens Phasge

Attorney Docket Number 13920US

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/A.P./		US- 4,959,132	9/1990	Fedkiw, Jr.	
/A.P./		US- 4,995,952	2/1991	Dandapani et al.	
/A.P./		US- 5,223,102	6/1993	Fedkiw, Jr. et al.	
/A.P./		US- 5,242,505	9/1993	Lin et al.	
/A.P./		US- 5,399,245	3/1995	Fedkiw, Jr.	
/A.P./		US- 5,677,073	10/1997	Kawatsu	
/A.P./		US- 6,245,214	6/2001	Rehg et al.	
/A.P./		US- 3,753,780	8/1973	Fetterman	
/A.P./		US- 3,607,417	9/1971	McRae et al.	
/A.P./		US- 3,207,682	9/1965	Oswin et al.	
/A.P./		US- 6,238,543	5/2001	Law, Jr. et al.	
/A.P./		US- 6,063,516	5/2000	Grot et al.	
/A.P./		US- 5,945,229	8/1999	Meltser	
/A.P./		US- 5,965,299	10/1999	Khan et al.	
/A.P./		US- 5,712,052	1/1998	Kawatsu	
/A.P./		US- 6,265,092	7/2001	Meltser et al.	
/A.P./		US- 6,068,942	5/2000	Strasser et al.	
/A.P./		US- 6,001,499	12/1999	Grot et al.	
/A.P./		US- 6,124,060	9/2000	Akita et al.	

FOREIGN PATENT DOCUMENTS

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/A.P./		JP 410216461	8/1998	Maeda et al.		
/A.P./		JP 402311302	12/1990	Furuya et al.		
/A.P./		WO 99/67846	12/1999	Iwase et al.		
/A.P./		EP 1017121	7/2000	Knights et al.		
/A.P./		EP 0692835	2/2001	Kawatsu et al.		
/A.P./		WO 98/52243	11/1998	Bratton et al.		

Examiner Signature	/Arun Phasge/	Date Considered	11/26/2008
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Sheet

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Application Number	10/537,503
Filing Date	June 3, 2005
First Named Inventor	James H. Saunders, et al.
Art Unit	1746 1795
Examiner Name	Thomas Stevens Phasge

Attorney Docket Number 13920US

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		Number-Kind Code ² (if known)			
/A.P./	US- 5,795,496		8/1998	Yen et al.	
/A.P./	US- 6,183,914		2/2001	Yao et al.	
/A.P./	US- 5,679,482		10/1997	Ehrenberg et al.	
/A.P./	US- 2006/0070886		4/2006	Saunders et al.	
/A.P./	US- 2002/0075003		6/2002	Fridman et al.	
/A.P./	US- 6,232,750		5/2001	Podrazhansky et al.	
/A.P./	US- 5,800,798		9/1998	Ino et al.	
/A.P./	US- 5,976,724		11/1999	Bloomfield, David P.	
/A.P./	US- 5,561,202		10/1996	Helmer-Metzmann et al.	
/A.P./	US- 4,420,544		12/1983	Lawson et al.	
/A.P./	US- 4,053,684		10/1977	Zito, Jr. et al.	
/A.P./	US- 5,985,477		11/1999	Iwasaki et al.	
/A.P./	US- 5,525,436		6/1996	Savinell et al.	
/A.P./	US- 2001/0037948		11/2001	Liu et al.	
/A.P./	US- 2001/0028967		10/2001	Roberts et al.	
/A.P./	US- 2001/0038937		11/2001	Suzuki et al.	
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*****	US-				→

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/A.P./	DE 19710819		3/1997	Stimming		

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Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	10/537,503
				Filing Date	06/03/2005
				First Named Inventor	Saunders et al.
				Art Unit	1746 1795
				Examiner Name	Thomas Stevens Phasge
Sheet	4	of	5	Attorney Docket Number	13920US

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
/A.P./		SPRINGER, T.E., ET AL., Model For Polymer Electrolyte Fuel Cell Operation On Reformate Feed, J. Electrochem. Soc. Volume 148, Issue 1, pp. A11-A23 (January 2001).		
/A.P./		International Search Report citing WO 01/80340 and DE 10053851		
/A.P./		International Search Report citing DE 19710819		
/A.P./		PARK, Direct Oxidation Of hydrocarbons In A Solid-Oxide Fuel Cell, Nature, Vol. 404, pp. 265-267 (2000).		
/A.P./		WANG ET AL., Pulsed-Potential Oxidation Of Methanol; I. Smooth Platinum Electrode With And Without Tin Surface Modification, J. Electrochem. Soc. V. 139, No. 9, 2519-2525 1992		
/A.P./		Dzwinel et al., A Computational Model Of Fuel Cell Short-Time Dynamics, Transactions, Vol. 4, No. 4, pp 229-310 (1987).		
/A.P./		Argyropoulos et al., Dynamic Response Of The Direct Methanol Fuel Cell Under Variable Load Conditions, Journal of Power Sources, Vol. 87, 153-161 (2000).		
/A.P./		Koper, The Theory Of Electrochemical Instabilities, Electrochimica Acta, Vol. 37, No. 10, pp 1771-1778 (1992).		
/A.P./		Parmananda et al., Stabilization Of Unstable Steady States In An Electrochemical System Using Derivative Control, Physical Review E. Vol. 49, No. 6, 5007-5011 (1994).		
/A.P./		Bockris, Basis Of Possible Continuous Self Activation In an Electrochemical Energy Converter, J. Electroanal. Chem., Vol. 7, 487-490 (1964).		

Examiner Signature	/Arun Phasge/	Date Considered	11/26/2008
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Sheet	5	of	5	Attorney Docket Number	13920US

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
/A.P./		Deibert et al., Voltage Oscillations Of The H ₂ -CO System, J. Electrochem. Soc., Vol. 116, No. 9, pp. 1290-1292 (1969).		T ²
/A.P./		Farooque et al., The Anodic Oxidation Of Methanol Via Continuous Electrode Reactivation, Electrochimica Acta, Vol. 24, pp. 547-553 (1979).		
/A.P./		Fedkiw et al., Pulsed-Potential Oxidation Of Methanol, J. Electrochem Soc., Vol. 135, No. 10, pp 2459-2465 (1988).		
/A.P./		Carrette et al., Improvement of CO Tolerance Of Proton Exchange Membrane (PEM) Fuel Cells By A Pulsing Technique, PCCP, Vol. 3, No. 3, pp. 320-324 (2001).		
/A.P./		Utkin, Sliding Modes In Control And Optimization, pp. 198-205, Springer-Verlag, Berlin (1992).		
/A.P./		Fukumoto, Oscillation Phenomena On The Cell Voltage Of PEFCs During CO Poisoning, Electrochemistry, Vol. 68, No. 10, pp 794, 796, 798, 800 (2000).		

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